



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OCT 15 2010

OFFICE OF  
WATER

Mr. John C. Hall  
Hall & Associates  
Suite 203  
1101 15<sup>th</sup> Street, N.W.  
Washington, D.C. 20005-5002

Re: Request for Independent Review of Office of Science and Technology Activities  
Regarding Issuance of Three Pennsylvania Nutrient TMDLs

Dear Mr. Hall:

I am writing in response to your September 14, 2010 letter requesting that the EPA Administrator's Office initiate an independent review of Office of Science and Technology ("OST") activities supporting EPA Region 3's June 2008 total maximum daily loads ("TMDLs") for Indian, Goose, and Paxton Creeks in the Commonwealth of Pennsylvania and the establishment of numeric nutrient criteria nationally. Your letter makes a number of very serious allegations against OST and EPA Region 3, including charges of "serious ethical and professional improprieties" and "intentional scientific misrepresentation, malfeasance and fabrication of regulatory requirements." Because of the seriousness of these charges, EPA's Office of General Counsel, the Office of Water, and EPA Region 3, in consultation with the Administrator's Office, is conducting a careful review of the issues raised in your letter. As part of that review, we are also considering the documents you mailed to Nancy Stoner on October 4, 2010.

Based on our review to date, I wanted you to know that we do not see any evidence that OST or Region 3 have acted in the unethical and unprofessional manner you claim. We appreciate the fact that you and your clients may not agree with many of OST's and Region 3's determinations and actions in connection with the establishment of these TMDLs. It is, of course, not unusual for parties to disagree – and often disagree strongly – with EPA over Agency actions that may affect them, especially when those actions rely on interpretations of legal authority and scientific data. We appreciate your concern that these Pennsylvania TMDLs, as well as EPA's support for the establishment of numeric nutrient criteria nationally, may result in the need for action by your clients, as well as other stakeholders, to reduce nutrient loadings to our Nation's waterways. Nevertheless, having begun a careful consideration of your claims and the documents you provided, we have yet to see evidence that OST or Region 3 have behaved in the highly inappropriate manner you suggest.

We thought it appropriate to begin our review with what we believe is your chief concern, i.e., that EPA established these TMDLs, in part, using a form of "stressor-response"

empirical analysis that (1) the Science Advisory Board (“SAB”) concluded was not scientifically defensible and (2) inappropriately “assumed” nutrients were the impairing pollutant. As you are aware, OST asked the SAB to review a draft technical guidance document for practitioners on the use of empirical methods to establish nutrient criteria in response to your request that we do so. That review was concluded in April 2010. It is true that the SAB made a number of recommendations to EPA for improving the document. However, with respect to “stressor-response” analysis, whose use by Region 3 appears to be at the heart of your dispute with these TMDLs, rather than conclude its use was not defensible, the SAB said that such analysis “is a legitimate, scientifically based method for developing numeric nutrient criteria if the approach is appropriately applied (i.e., not used in isolation but as part of a weight-of-evidence approach.” (Letter from SAB Chair to Lisa P. Jackson, dated April 27, 2010).

Our review of the three Pennsylvania TMDLs reveals that the “stressor-response” analysis was not used “in isolation” to determine an appropriate TMDL endpoint but was, instead, used (as the SAB recommended) as part of a “weight-of-evidence approach” that additionally relied on frequency distributions calculated from reference sites, mechanistic water quality modeling, and other national and regional nutrient studies and criteria values. (See Indian Creek TMDL at pp. 8-10; Goose Creek TMDL at pp. 2-1 to 2-4; Paxton Creek TMDL at pp. 4-1 to 4-3). While you are, of course, free to disagree with Region 3’s or OST’s use and support of “stressor-response” analysis in these TMDLs or elsewhere, we fail to see how its use here reflects any sort of “intentional scientific misrepresentation, malfeasance and fabrication.”

As to your claim that EPA’s TMDL endpoint analysis “assumed” nutrients were the impairing pollutant, it is worth noting that TMDL endpoint calculation occurs *after* the water has been determined to be impaired and the impairing pollutant has been identified. For these three waters, based on an assortment of biological, chemical, observational, and modeling data, the Commonwealth and EPA had already concluded that *nutrients* were the impairing pollutant. Pennsylvania had identified nutrients as the impairing pollutant for Paxton Creek on its 1996 CWA 303(d) list. It did the same for Indian Creek on its 2004 CWA 303(d) list. While it is true that Pennsylvania identified Goose Creek on the 1996 CWA 303(d) list with an initial general reference to “other” pollutants from “municipal point sources,” there is evidence in the TMDL record to support the conclusion that “nutrients” were the impairing pollutant, including statements in February 2008 by Pennsylvania DEP biologist Alan Everett (“the 2006 follow-up survey were [sic] performed to confirm high levels of nutrients and adverse nutrient responses (algal biomass, nutrient tolerant diatoms, diel DO swings, etc.)” and “...the nutrient cause should be linked more to the 2006 follow-up survey work than the original 1998 SSWAP work.”) and USGS findings of elevated nitrate and phosphorus levels, among other elevated concentrations, with the conclusion that “The degraded stream quality created by the discharges from the wastewater-treatment plant is limiting the benthic macroinvertebrates in Goose Creek and East Branch Chester Creek below Goose Creek.”) In addition, in April and June 2008, before the TMDLs were established, John Hines, Acting Director of PADEP’s Bureau of Watershed Management, wrote letters to Region 3 stating that “[w]ith respect to phosphorus, the Department supports the approach that EPA used as an interpretation of the Commonwealth’s narrative criteria” and “it is DEP’s view that the chosen approach and endpoint adequately protect all beneficial water uses in those watersheds.”) In light of the above, we do not see evidence that EPA’s focus on nutrients in deriving the TMDLs’ endpoints, which endpoints were

then submitted for public comment and feedback, was “intentional scientific misrepresentation, malfeasance and fabrication.”

Another significant “malfeasant” action you cite is “[i]nforming the public that a federal consent decree mandated that EPA issue nutrient TMDLs knowing that two of the three TMDLs were not covered by that decree.” We have reviewed the operative language of the 1997 consent decree and do not agree with your interpretation that only one of the waterbodies was covered. The consent decree says that: “If Pennsylvania fails to establish TMDLs for all *WQLSs [water quality limited segments] identified on Pennsylvania’s 1996 Section 303(d) list* according to the schedule below, then EPA shall establish TMDLs for the balance of the TMDLs for which Pennsylvania has not established TMDLs according to the schedule below.”

The consent decree requires EPA to establish TMDLs for *water quality limited segments* (WQLSs) identified on Pennsylvania’s 1996 303(d) list of impaired waters. All three of the TMDL waterbodies were identified on Pennsylvania’s 1996 list. Moreover, there is evidence in the record that the Commonwealth requested that EPA develop these TMDLs. (Letter from John Hines (PADEP) to Robert Koroncai (EPA Region 3), dated June 27, 2008.) It is immaterial that the 1996 list did not specify that “nutrients” were the cause of impairment in Indian and Goose Creeks. To be covered by the decree, the waterbodies merely had to be identified on the 1996 list as impaired, and all three waters were so identified. Again, after carefully reviewing your claim, we do not see evidence that EPA was in any way “malfeasant” in asserting legal authority to establish these TMDLs.

Your letter alleges a host of other EPA misdeeds in connection with these TMDLs and OST support for the establishment of numeric nutrient criteria nationally. Due to the large number of claims, we have not yet been able to complete our review. It is ongoing, and you can be sure we are giving all your claims careful consideration.

Sincerely,

A handwritten signature in black ink that reads "Pet Silva". The signature is stylized with a large, looping "P" and a cursive "Silva".

Peter Silva  
Assistant Administrator  
Office of Water